

L 41998-65 ENT(1)/ENG(J)/ENG(R)/FS(V)-3/ENG(V)/ENG(A)-2/ENG(C) Pa-5 DD

ACCESSION NR: AT5010618

UR/3147/64/003/000/0206/0210

AUTHOR: Polumiskov, Yu. M.

32
B+1

TITLE: How the resorption of gas emboli in the circulatory system of animals and the course of pulmonary barotrauma are affected by breathing oxygen ✓

SOURCE: AN SSSR. Institut evolyutsionnoy fiziologii. Funktsii organizma v usloviyakh gazovoy sredy, v. 3, 1964, 206-210

TOPIC TAGS: barotrauma, embolism, oxygen uptake, blood gas, air pressure, hemorrhage

ABSTRACT: In a series of experiments on cats, the animals were forced to breathe oxygen 30-50 minutes before intrapulmonic pressure was increased. Pulmonary barotrauma with arterial gas embolism was then induced. After respiration and circulation were restored, the animals continued to breathe oxygen. In a second series of experiments, pulmonary barotrauma with arterial gas embolism was induced with air. Twenty seconds after pressure was reduced, the animals were forced to breathe oxygen through the remainder of the experiment. In a third series, pulmonary barotrauma was induced with air which the animals continued breathing throughout the experiment (control). It was found that barotrauma induced by increasing oxygen

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L 41998-65

ACCESSION NR: AT5010618

pressure in the lungs followed by breathing oxygen at reduced pressure had a more favorable course than was the case when the animals breathed air alone. When animals with pulmonary barotrauma and arterial gas embolism were forced to breathe oxygen for 2-4 hours, the gas emboli in the vascular bed were completely resorbed. When air was breathed, the gas bubbles were dissolved much more slowly. Dissection revealed numerous hemorrhages along the coronary blood vessels as well as in the mesenteric vessels of the small and large intestines and other organs. Orig. art. has: 3 tables.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: LS

NO REF SOV: 003

OTHER: 000

ce
Card 2/2

POLUMISKOVA, M.V., Cand Biol Sci -- (diss) "Effect of
~~pollenization~~ ^{by} conditions on the fertility and ~~the~~
improvement of the ^{natural} qualities of corn seeds."
Frunze, 1958, 19 pp (Min of Agr USSR. Kirgiz Agr
Inst) 150 copies (KL, 50-48, 122)

- 38 -

Title : Application of Artificial Complementary Polli-
nation for the Obtainment of Corn Hybrid Seeds.
Orig Pub : Tr. Kirg. s.-kh. in-ta, 1957, vyp. 10, No. 1,
77-81

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341920005-6"

Abstract : Very few viable pollen grains were observed
the experiments, conducted in 1951-1952, on
the stigmata and styles in all the cases of
wind pollination. At the complementary pollina-
tion of one or another variety, the quantity of
intergrown pollen grains after 24 hours was grea-
ter and the pollen tubules were longer on the
just-developed stigmata of the middle and relati-

Card : 1/3

Country : USSR
Category : Cultivated Plants. Cereals. Leguminous Plants.
Tropical Cereals. M

Abs Jour : RZhBiol., No 6, 1959, No 24828

Author :
Inst :
Title :

Orig Pub :

Abstract : vely old age. The grain harvest and its qualitative indices were higher. Under conditions of the Chuysk Valley, for the obtainment of hybrid seeds it is best to utilize in the capacity of the maternal form the varieties Sterling and Liming, and in the capacity of the paternal form - the varieties Sucrose, early-maturing Siliceous, Pearl, Rice, Liming and Sterling. A

Card : 2/3

11

POLUNISKOVA, M.V.

Effect of pollination conditions on improving strain qualities of
seed corn. Agrobiologiya no. 3:119-123 My-Je '58. (MIRA 11:7)

1. Kirgizskiy sel'skokhozyaystvennyy institut. g. Frunze.
(Corn(Maize))
(Fertilization of plants)

MONINA, P.V., kand.tekhn.nauk; GLAZOVA, R.A., starshiy nauchnyy sotrudnik;
LATYSHEVA, N.P.; POLUMIYENKO, Ye.A., inzh.

Results of tests on Kovo hydraulic looms. Tekst.prom. 20
no.2:36-39 F '60. (MIRA 13:6)

1. TSentral'nyy nauchno-issledovatel'skiy institut shelkovoy
promyshlennosti (for Glazova). 2. Glavnyy inzhener shelkotkatskoy
fabriki imeni Sverdlova (for Latysheva).
(Looms) (Synthetic fabrics)

SERGIYEV, P.G.; RASHINA, M.G.; VASIL'KOVA, Z.G.; PROKOPEUKO, L.I.; LYSENKO, A.Ya.;
ZVIAGINTSEV, S.N.; OLIFAN, V.I.; BANDIN, A.I.; RAKHMANOVA, P.I.; TIMOFEYEVA,
L.V.; BUYANOVA, O.F.

In memory of A.D. Polunordinov. Med.paraz.i paraz.bol. no.3:287 My-Je '53.
(MLRA 6:8)

(Polunordinov, Arsenii Dmitrievich, 1902-1953)

1. POLUMORDVINOV, A. D.
 2. USSR (600)
 4. Sanitation
 7. Sanitation requirements in the planning of rural settlements and of individual farmsteads in the areas of the great communist construction projects. Fel'd. i akush. No. 4, 1953.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

POLJUMORDVINOV, A.D.

Characteristics of certain types of potential foci of malaria in the zone of
water reservoirs. Gig. i san. no. 8:19-25 Ag '53. (MLRA 6:9)

1. Institut malyarii, meditsinskoy parazitologii i gel'mintologii Ministerstva
zdravookhraneniya SSSR. (Malarial fever)

POLUMORDVINOV, A.D.; BANDIN, A.I.; SERGIYEV, P.G., professor, direktor instituta, zavedayushchiy sektorom.

Malariological typing of ravine ponds. Med.paraz.i paraz.bol. no.2:116-126 Mr-Apr '53. (MLRA 6:6)

1. Sektor kompleksnogo planirovaniya protivomalyariynykh meropriyatiy Instituta malyarii, meditsinskoy parazitologii i gel'mintologii Ministerstva zdravookhraneniya SSSR. 2. Institut malyarii, meditsinskoy parazitologii i gel'mintologii Ministerstva zdravookhraneniya SSSR, (for Sergiyev). (Malarial fever)

POLUMORDVINOV, O.S.

At the foothills of **Tien Shan**. Put' i put.khoz. 5 no.9:21 S '61.
(MIRA 14:10)

1. Nachal'nik Alma-Atinskoy distantzii puti.
(Kazakhstan--Railroads--Employees)

POLUMORDVINOV, V.A., inzhener; SHONINA, Z.M., inzhener.

Using precast plain and reinforced concrete elements in constructing a water-supply tunnel. Nov.tekh.i pered.op.v stroi.
19 no.4:21-22 Ap '57. (MIRA 10:7)
(Precast concrete construction) (Water-supply engineering)

POLUMORDVINOVA, I. G.

AID P - 2321

Subject : USSR/Engineering

Card 1/1 Pub. 110-a - 2/17

Authors : Varshavskiy, D. P., P. Ya. Boguslavskiy, Kand. of Tech. Sci. and Polumordvinova, I. G., Eng.

Title : Determining the creep of machine elements by using the method of analogies on appropriate models

Periodical : Teploenergetika, 5, 9-16, My 1955

Abstract : The use of models made of copper and steel for testing the effects of creep in various machine parts and elements is discussed. Theoretical calculation and experimental results are illustrated with stress-strain diagrams. Three Russian references, 1874-1948.

Institution : Moscow Branch of the Central Turbine-Boiler Institute

Submitted : No date

L 4224-66 EWT(m)/EPA(w)-2/EWA(m)-2 IJP(c) GS
ACCESSION NR: AT5007952

S/0000/64/000/000/0833/0839

AUTHOR: Dmitriyevskiy, V. P.; Kol'ga, V. V.; Polumordvinova, N. I.

TITLE: Nonlinear effects and internal resonances in the relativistic cyclotron

SOURCE: International Conference on High Energy Accelerators, Dubna, 1963.
Trudy. Moscow, Atomizdat, 1964, 833-839

TOPIC TAGS: relativistic particle, cyclotron, electron oscillation, resonance

ABSTRACT: In the relativistic cyclotron with spatial variation of the magnetic field, a very important role is played by nonlinear effects. In the majority of cases it is the nonlinear effects that determine the choice of the size of the parameters which characterize the structure of the magnetic field. The present report expounds the results of a theoretical discussion of the influence exerted by the nonlinear effects upon the motion of particles in the relativistic cyclotron. This work was completed in connection with the development of the relativistic 700-Mev proton cyclotron (Glazov, A. A.; Denisov, Yu. N.; Dzhelepov, V. P.; Dmitriyevskiy, V. P.; Zamolodchikov, B. I.; et al., present collection, p. 547). The system of equations which describe the motion of charged particles in a given magnetic field for constant or adiabatically-varying momentum was derived, in the cylindrical sys-

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L 1221-66
ACCESSION NR: AT5007952

tem of coordinates, and studied by D. P. Vasilevskaya, et al., (*Atomnaya energiya* 8, 189 (1960)). The present authors consider simplifying assumptions and discuss the solution of the system. They discuss the nonlinear effects that act in a narrow interval of frequencies of free oscillations, causing the resonance magnification of the amplitude of corresponding oscillations. Choice of a definite regime of motion of the describing points over the stability region can ensure, by exclusion of a small region of small radii, the constancy of the frequency of the axial oscillations during the acceleration process. Therefore the authors begin their discussion with the resonances for radial oscillations, on the basis of certain nonlinear terms in the main equations. Use was made of asymptotic methods (N. N. Bogolyubov and Yu. A. Mitropol'skiy, *Asymptotic methods in the theory of nonlinear oscillations*, Moscow, Fizmatgiz, 1956). The phase-plane topological description of the resonance was obtained by numerical integration on the electronic computer at the Joint Institute of Nuclear Research (JINR). For certain conditions (e. g. amplitude less than 6 cm), according to the results of the computations, no noteworthy increase in the amplitude of axial oscillations is observed during passage through the resonance zone. The results agree with the values of the separatrices on the phase diagram as obtained from the corresponding simplified equations. Orig. art. has: 4 figures.

Card 2/3

ZINOV, V.G.; KORENCHENKO, S.M.; POLUMORDVINOVA, N.I.; TENTYUKOVA, G.N.

Phase shift analysis of scattering of 240-330 Mev π -mesons on
hydrogen. Zhur.eksp.i teor.fiz. 38 no.5:1407-1418 My '60.
(MIRA 13:7)

1. Ob'yedinennyy institut-yadernykh issledovaniy.
(Mesons--Scattering)

POLJUMORDVINOVA, O. D.

"The Problem of Controlling Browth and Development of Potatoes."
Cand Agr Sci, Leningrad Agricultural Inst, Min Higher Education USSR,
Leningrad, 1955. (KL, No 7, Feb 55)

SO: Sum. No 631, 26 Aug 55-Survey of Scientific and Technical
Dissertations Defended at USSR Higher Educational Institutions
(14)

83574
S/056/60/038/005/007/050
B006/B070

24.6900

AUTHORS:

Zinov, V. G., Korenchenko, S. M., Polumordvinova, N. I.,
Tentyukova, G. N. 19

TITLE:

Phase Shift Analysis of the Scattering of π Mesons by
Hydrogen in the Energy Range 240 - 330 Mev

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,
Vol. 38, No. 5, pp. 1407-1418

TEXT: In the previous paper in this issue (p. 1399), the authors have published the results of (π^- , p) charge-exchange scattering experiments. In the present paper, they give a phase shift analysis using the isotopic spin formalism which depends on the hypothesis of charge independence of the nuclear forces. The formulas are collected in the first part of the paper; in the second part, the method of phase shift analysis is briefly discussed, and the errors are determined. All calculations were performed on the fast electronic computer "Стрела" ("Strela"). The phase shift analysis, taking S and P waves into account (SP analysis), is given in part 3 of the paper. For every value of pion energy, 25 experimental points

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83574

Phase Shift Analysis of the Scattering of
 π Mesons by Hydrogen in the Energy Range
 240-330 Mev

S/056/60/038/005/007/050
 B006/B070

were used: eight differential elastic (π^+ ,p) scattering cross sections, seven differential elastic (π^- ,p) scattering cross sections, eight differential exchange scattering cross sections, and the two total scattering cross sections of the positive and the negative pions by hydrogen. Part of the experimental data are taken from the work of A. I. Mukhin, Ye. B. Ozerov, B. Pontekorvo, and N. A. Mitin. The phase shift data for 220-Mev pion energies, taken from a work of Ashkin et al., are given in Table 1. Depending on the kind of phase shift sets, the data are collected in seven variants in Tables 3-6 (for pion energies of 240, 270, 307, and 333 Mev). The angular distributions of the negative pions and gamma quanta for elastic and exchange scatterings calculated from the phase shifts, are shown in Figs. 1-4. The solid curves are drawn from the results of calculation from the formula $d\sigma/d\Omega = A_0 + A_1 P_1(\cos\theta) + A_2 P_2(\cos\theta)$; the broken

lines are calculated from the SP analysis. The elements of the error matrix for pion energies of 220, 240, 270, 307, and 333 Mev are collected in Tables 7-11. The phase analysis taking S, P, and D waves into account (SPD analysis) is treated in part 4. The contribution of the D-waves ($l=2$) is already significant for $E_\pi \sim 300$ Mev. The numerical results of

Card 2/3

TATARZHINSKIY, L., arkhitekt; POLUMORDVINOVA, V., arkhitekt

Apartment-house facilities areas. Zhil.stroi. no.6:12-15
Je '60. (MIRA 13:7)

(Apartment houses)

(Refuse and refuse disposal)

POLUMORDVINOVA, Ye.D., dotsent

14th All-Union Congress of Microbiologists, Epidemiologists,
and Infectious Disease Specialists, Moscow, June 23 - July 4,
1964. Sov. med. 28 no.10:149-153 O '65. (MIRA 18:11)

POLUMORDVINOVA, Ye.D., dotsent; SEDLOVETS, M.P., assistant; GUSEVA, T.M.
vrach-laborant.

Clinical evaluation of the determination of ether-soluble
bilirubin for differential diagnosis in jaundices of various
etiology. Kaz.med. zhur. no.3:85-86 My-Je '63. (MIRA 16:9)
(BILIRUBIN) (DIAGNOSIS, DIFFERENTIAL)
(JAUNDICE)

POLUMORDVINOVA, Ye.D., dotsent (Moskva)

Lambliasis of the bile ducts. Fel'd. i akush. 26 no.7:9-12 J2 '61.
(MIRA 14:7)

(GIARDIASIS)

(BILE DUCTS--DISEASES)

BULKINA, I.G.; BUNIN, K.V., prof.; KUZNETSOV, V.S.; MIKHAYLOVA, Yu.M.;
NOVAKOVSKAYA, A.A.; POKROVSKIY, V.I.; POLIMORDVINOVA, Ye.D.; SEDLOVETS,
M.P.; STARSHINOVA, V.S.; TSEYDLER, S.A.; SHKHVATSABAYA, T.V.; YAKHON-
TOVA, N.K.; SHERESHEVSKAYA, Ye.F., red.; ZUYEVA, N.K., tekhn. red.

[Pocket manual for the specialist in infectious diseases; clinical
aspects, diagnosis, and treatment] Karmannyi spravochnik infektsioni-
sta; klinika, diagnostika, lechenie. Moskva, Gos. izd-vo med. lit-ry
Medgiz, 1961. 233 p. (MIRA 14:7)

(COMMUNICABLE DISEASES) (MEDICINE--HANDBOOKS, MANUALS, ETC.)

POLUMORDVINOVA, Ye. D.; SEDLOVETS, M. P.; GUSEVA, T. M.

Ether-soluble bilirubin in Botkin's disease. Terap. arkh. 34
no.4:82-87 '62. (MIRA 15:6)

1. Iz kafedry infektsionnykh bolezney (zav. - prof. K. V. Bunin)
I Moskovskogo ordena Lenina meditsinskogo instituta imeni I. M.
Sechenova na baze 1-y infektsionnoy gorodskoy klinicheskoy
bol'nitsy.

(HEPATITIS, INFECTIOUS) (BILIRUBIN)

POLEPODVIKOVA, YE. D.

Clinic of Contagious Diseases, Leningrad Order of Lenin
S. M. Kirov Inst. for the Improvement of Doctors. (-1944-)

Chair of Pathological Anatomy, Leningrad Order of Lenin
S. M. Kirov Inst. for the Improvement of Doctors.

"Serotherapy of Diphteritic Intoxication with Administration
of Magnesium Sulfuricum."

Zhur. Mikrobiol., Epidemiol., i Immunobiol., No. 4-5, 1944.

POLUMORDVINOVA, Ye.D.

Residual blood nitrogen in toxic diphtheria. Klin.med., Moskva 29
no.5:86 May 1951. (CIML 20:9)

1. Of the Clinic for Infectious Diseases (Director--Prof. A.F.
Bilibin), Moscow Medical Institute of the Ministry of Public
Health RSFSR, Moscow.

POLOMORDVINOVA, Ye. D.

Blood cholesterol in toxic diptheria. Klin. med., Moskva 29
no.7:83 July 1951. (GIML 20:11)

1. Of the Clinic of Infectious Diseases (Director -- Prof. A.
F. Bilibin), Moscow Medical Institute of the Ministry of
Public Health, RSFSR.

POLUMORDVINOVA, Ye.D., dotsent

Use of acrichine in treating lambliasis of the biliary tracts
associated with Botkin's disease. Sov. med. 25 no.2:130-132
F '62. (MIRA 15:3)

1. Iz kafedry infektsionnykh bolezney (zav. - prof. K.V. Bunin)
I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.S.
Sechenova na baze Infektsionnoy gorodskoy klinicheskoy bol'nitsy
No.1 (glavnyy vrach N.G. Zaleskver).

(GIARDIASIS)
(BILIARY TRACT--DISEASES)

(HEPATITIS, INFECTIOUS)
(QUINACRINE)

POLUNGYAN, A.A., kand. tekhn. nauk

Calculating the transmission of a multiple-drive wheeled
vehicle for twisting vibrations. Izv. vys. ucheb. zav.;
mashinostr. no.7:127-130 '65. (MIRA 18:12)

1. Submitted December 28, 1964.

1ST AND 2ND DDDI (S)										3RD AND 4TH DDDI (S)																	
PROCESSES AND PROPERTIES INDEX																											
F 1515. OBTAINING OF LUBRICATING OIL EMULSION BY USING THE SULPHONATION PRODUCTS OF SHALE TAR AS EMULSIFIERS. Berkengelm A M and Polunin E F (S. Appl. Chem. (U.S.S.R.) 1943, 16, (11-12) 345-350; J. Instl. Petrol, 1945, 31, 44A) With a view to finding replacements for the salts of naphthenic and sulphonaphthenic acids as emulsifiers for cutting oilsm investigations were made into the use of shale tar fractions. For this purpose the 210-350°C. fraction of a high (6%) sulphur shale tar was sulphonated and subsequently neutralized. After numerous experiment the following emulsion base composition was finally recommended: <table border="0"> <tr> <td>Mineral (s. indle) oil</td> <td>75.0</td> </tr> <tr> <td>Sodium salt of sulphonated shale oil</td> <td>5.0</td> </tr> <tr> <td>Water</td> <td>14.2</td> </tr> <tr> <td>Caustic soda</td> <td>0.2</td> </tr> </table> Unlike previously used mixtures, the above is																				Mineral (s. indle) oil	75.0	Sodium salt of sulphonated shale oil	5.0	Water	14.2	Caustic soda	0.2
Mineral (s. indle) oil	75.0																										
Sodium salt of sulphonated shale oil	5.0																										
Water	14.2																										
Caustic soda	0.2																										
ASSOCIATED METALLURGICAL LITERATURE CLASSIFICATION 15000 15100 15200 15300 15400 15500 15600 15700 15800 15900 16000 16100 16200 16300 16400 16500 16600 16700 16800 16900 17000																											

POLUNIN, A., inzh.

Establishing safe regimens of the motion of ships in shallow
waters. Rech.transp. 23 no.9:52-53 S '64.

(MIRA 19:1)

POLUNIN, A.I.

Krasnodar Veterinary Research Station. Trudy VIEV 23:376-378 '59.
(MIRA 13:10)
(Krasnodar Territory--Veterinary research)

L 36304-66 EWT(d)/EWP(h)/EWF(L)

ACC NR: AT6014306

(N)

SOURCE CODE: UR/3191/64/000/015/0006/0014

AUTHOR: Pavlenko, V. G.; Polunin, A. M.

ORG: none

TITLE: Effect of flow on the draft variation of river boats in shallow water

SOURCE: *Novosibirsk. Institut inzhenerov vodnogo transporta. Trudy, no. 15, 1964. Gidromekhanika sudna (Hydromechanics of ships), 6-14

TOPIC TAGS: ship, ship draft

ABSTRACT: The problem of draft variation of ships in shallow water has been analyzed. Experiments show that the draft is greater downstream and lesser upstream in nonflowing shallow water. The conception of equivalent water depth is introduced. The latter is determined by the following expression:

$$\frac{H_e}{H} = \left(1 - A \frac{c}{v}\right)^2,$$

where H_e is the equivalent water depth; H is real depth; c is the velocity of flowing water; v is ship speed in relation to water; A is an experimental coefficient. Analysis of diagram of streams-velocity distribution against water depth permits determination of the coefficient A as follows: $A = 1 - \alpha$, where α is the curve area

Cord 1/2

UDC: 629.122.1:656

L 36304-66

ACC NR: AT6014306

ratio. Experimental data, obtained at the Novsibirsk Water Transport Institute, show the dependence of relative variation in a ship's draft on such nondimensional parameters as $t = T/H$, c/v , and $Fr_T = v/\sqrt{gT}$, where Fr is the Fronde number, T is the ship's draft at $v = 0$, and g is acceleration due to gravity. Orig. art. has: 7 figures and 7 formulas. [Based on authors' abstract.] [NT]

SUB CODE: 13/ SUBM DATE: none/ ORIG REF: 002/ OTH REF: 001

Card 2/2 *py*

PAVLENKO, V.G.; POLUNIN, A.M.

Approximate determination of the inertia characteristics of ships
on hydrofoils. Izv.Sib.otd.AN SSSR no.2:22-29 '60.

(MIRA 13:6)

1. Novosibirskiy institut inzhenerov vodnogo transporta.
(Hydrofoils)

POLUNIAN, N.N.

Biology of flowering and embryology of *Eugenia myrtifolia* Sims.
Biol. Glav. bot. sada no.30:59-65 '58. (MIRA 11:6)

1. Glavnyy botanicheskiy sad Akademii nauk SSSR.
(Eugenia) (Plants, Flowering of)

LAKHTANOV, V.; POLUNICHEV, N.

Active distributors of the press. Zdrav. Belor. 5 no.2:75 F '59.
(MINSK--NEWSPAPER AND PERIODICAL CIRCULATION) (MIRA 12:7)

1

POLUNIN, A., inzh.

Calculating the safe speed of ship propulsion in shallow waters.
Rech. transp. 22 no.6:39-41 Je '63. (MIRA 16:9)
(Ship propulsion—Tables, calculations, etc.)

POLUNIN, A. I.

Jun 53

USSR/Medicine - Brucellosis

"Characteristics of the Brucella Strains Obtained from a Nidus of Ovine Brucellosis,"

A. I. Polunin, Stavropol' Kray AntiBrucellosis Sta

Zhur Mikro Epid i Imun, No 6, pp 11-14

Brucella strains (Br. melitensis) isolated from goats or from humans who have become infected through contact with goats, are highly virulent for guinea pigs. Strains of Brucella melitensis obtained from the blood of humans who became infected as a result of contact with brucellar sheep are also virulent; however, only large doses of them produce a generalized infection in guinea pigs.

267T10

POLUNIN, A. I.

POLUNIN, A. I. — "Peculiarities of Brucellosis in Goats in the Stavropol Kray." * (Dissertation for Degrees in Science and Engineering Defended at USSR Higher Educational Institutions, Min of Higher Education, USSR, Novochoerkassk Zootechnical-Veterinary Inst imeni First Cavalry, Novochoerkassk, 1954.

SO: Knizhnaya Letopis', No 25, 18 Jun 55

* For Degree of Candidate in Veterinary Sciences

POLUNIN, A.I.

Cleaning cooling coils of the bottom of a blast furnace by
the sand blasting method. Metallurg 9 no.9:9 S '64.
(MIRA 17:10)

1. Starshiy master vodoprovodnogo uchastka domennogo tsekha
zavoda im. Dzerzhinskogo.

FOLUNIN, A.M., inzh.

Results of full-scale trials on the effect of shallow water on
the trim of cargo motorships. Trudy NIIVTa no.14:35-42 '63.
(MIRA 17:4)

POLUNIN, A.M. inzh.

Design method of recording the circulation of a high-speed vessel.
Trudy NIIVTa no.14:55-59 '63. (MIRA 17:4)

L 00623-67 EWP(h)/EWT(d)/EWP(1)

ACC NR: AT6014308

(N)

SOURCE CODE: UR/3191/64/000/015/0038/0089

AUTHOR: Polunin, A. M.

32
BT1

ORG: none *

TITLE: Hydromechanical investigations of the safety of freight and passenger river boats in shallow water

SOURCE: * Novosibirsk. Institut inzhenerov vodnogo transporta. Trudy, no. 15, 1964. Gidromekhanika sudna (Hydromechanics of ships), 38-89

TOPIC TAGS: boat draft, shipping safety, flow analysis

ABSTRACT: In connection with the safety of freight and passenger river boats, certain general expressions concerning increased boat draft in shallow water have been determined. The problem of the upper limit of the subwave regime of the boat's motion, expressed by the Fronde number for draft, was analyzed. It was shown that at $Fr_n \leq 0.65$, the wave system of a boat can be neglected (Fr_n is the Fronde number for draft). The equation was obtained for variation in a boat's draft in shallow water analyzing the three-dimensional flow around the boat's hull. Accepting the usual assumptions of the wave theory, draft variation against speed was computed for a thin boat with the length and draft ratio $L/T = 30$. To determine safe speed in shallow water, nomograms of experimental data were designed. Orig. art. has: 25 figures, 91 formulas, and 9 tables. [Based on author's abstract.] [NT]

SUB CODE: 13/ SUBM DATE: none/ ORIG REF: 031/ OTH REF: 006/
Card 1/1 pb UDC: 656.053.2.001.5

POLUNIN, G.V.

Large burial of mammoths in the Barabinskaya Steppe. Trudy
SNIIGGIMS no.14:46-48 '61. (MIRA 15:8)
(Barabinskaya Steppe (Novosibirsk Province)--Mammoth)

POLUNIN, I.F.

Correction of plan materials for the accounting of land use.
Trudy MIIZ no.10:187-193 '60. (MIRA 16:12)

BODAN, A.N.; MASKAYEV, A.K.; POLUNIN, M.N.

Investigating the conditions for the use of vat residues from
the distillation of synthetic fatty acids in the production of
bitumens. Neft. i gaz. prom. no.1:46-49 Ja-Mr '64.

(MIRA 18:2)

S/035/60/000/010/020/021
A001/A001

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1960, No. 10, p. 128, # 10703 ✓

AUTHOR: Polunin, I. F.

TITLE: Graphical Documents of Cadastres (Exemplified by the Cadastre of the Former Austria-Hungary)

PERIODICAL: Tr. Mosk. in-ta inzh. zemleustroystva, 1959, No. 8, pp. 183-188 ✓

TEXT: The year of 1817 is considered as the beginning of large-scale cadastral surveys in Austria-Hungary, since the work was then developed on the establishing of the so-called "permanent cadastre" (organization of triangulation, description of boundaries and survey). In the organization of triangulation, a plan of distribution of trigonometric points was compiled for each cadastral region, which served as a guide in compiling the description of boundaries of a community. In addition to the description, a layout of boundaries was plotted, which represented a simplified and approximate plan of community land. Then surveys of parcels and farm land portions of the communities were carried out.

Card 1/2

S/035/60/000/010/020/021
A001/A001

Graphical Documents of Cadastres (Exemplified by the Cadastre of the Former Austria-Hungary)

In order to renew the cadastres, new surveys were performed after 20 years. On the basis of survey materials, cadastral maps were charted for each community on the 1:2,880 scale. The boundaries of land-tenure were the main content of these maps.

V. V. Agafonov

Translator's note: This is the full translation of the original Russian abstract. ✓

Card 2/2

S/035/62/000/011/051/079
A001/A101

AUTHOR: Polunin, I. F.

TITLE: Estimate of the precision of the area of a section confined
between the part of a traverse and the closing line

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 11, 1962, 14,
abstract 11G111 ("Tr. Belorussk. s.-kh. akad.", 1961, v. 35,
159 - 163

TEXT: Surveys of territories of kolkhozes or sovkhoses are performed on
several trapezias (sheets) of the ruling used; therefore, in analytical method
of area determination, one has to calculate on each trapezium the area confirmed
between the part of a theodolite traverse run along the boundary of land-tenure
and the frame of trapezia. In this connection a necessity arises, while estimat-
ing the precision of area determination by analytical methods, to calculate an
error in area between the land-tenure boundary (a part of theodolite traverse)
and the closing line connecting extreme points of the boundary within the limits
of one trapezium. Formulae are derived of the mentioned error for two cases: ✓

Card 1/2

Estimate of the precision of the area of a...

S/035/62/000/011/051/079
A001/A101

1) The closing line is drawn from the fixed initial or end point to any other point of the traverse; 2) the closing line connects two arbitrary points of the traverse. The formula for the second (more general) case looks as follows:

$$m_p = \approx 0.2n \sqrt{\frac{1}{5} - \frac{1}{6(r+1)} - \frac{(r-t-s)^2}{2(r+1)^3}} \cdot L^2 m_\beta$$

where L is the length of a traverse part for which area error is being determined, n is number of lines in this part of the traverse, s and t are numbers of the initial and end points of this traverse part, r is number of lines in the entire traverse, m_β is rms error in measuring an angle.

A. Maslov

[Abstracter's note: Complete translation]

Card 2/2

AUTHOR: Polunin, I. P.

6-58-2-15/21

TITLE: Experiences Made Abroad in the Use of Engravings on Transparent Bases for Cartography (Zarubezhnyy opyt primeneniya gravyury na prozrachnykh osnovakh v kartografii)

PERIODICAL: Geodeziya i Kartografiya, 1958, Nr 2, pp. 56-64 (USSR)

ABSTRACT: A survey is given here of the use of engravings on glass and plastics for surveying purposes in Germany, Sweden, the USA, and Switzerland. For further development of the negative engraving method are demanded: 1) the production of nondeforming plastics; 2) the production of engraving layers, which better meet the requirements; 3) the production of new and better engraving instruments, especially electronic instruments; 4) the control and the simplification of some symbols in order to facilitate the engraving; 5) the working out of fonts more convenient for engraving. There are 8 figures and 8 references, 3 of which are Soviet.

1. Mapping--Equipment 2. Transparent panels--Applications

Card 1/1

POLUNIN, I.F.

Use of transparent-base gravures in cartography in foreign countries.
Geod. i kart. no.2:58-64 F '58. (MIRA 11:4)
(Cartography) (Photogravures)

YEGOROV, A.S.; MYAKOTA, L.I.; POLUNIN, I.P.; TARANETS, A.M.

Improving the design of ionometers. Trudy UkrNIISP no.5:189-
196 '59. (MIRA 16:11)

POLUNIN, N.

Shipping grain according to time schedules. Avt.transp. 32 no.9:
4-6 S '54. (MLRA 7:11)

1. "Soyuzsagottrans"
(Grain--Transportation)

POLUNIN, N.

V-blade snow plow mounted on a ZIS-151 truck. Avt.transp. 32 no.1:
35-36 Ja '54. (MLRA 7:8)
(Snow plows)

POLUNIN, N.

Better use of motortrucks in transporting fertilizer. Int. transp.
42 no. 6215-17 Jan 64 (MIRA 1727)

POLUNIN, N.

Operation of automobiles on virgin and idle lands. Avt. transp.
33 no.4:9-10 Ap '55. (MLRA 8:7)

1. Soyuzsagottrans.
(Transportation, Automotive)

POLUNIN, N.I.

The RU-4 fertilizer spreader. Biul.tekh.-ekon.inform.Gos.nauch.-
issl.inst.nauch.i tekh.inform. 16 no.6:62-64 '63. (MIRA 16:3)
(Fertilizer spreaders)

POLUNIN, N.I.

The ~~PTS~~-1 single-axle tractor tank trailer. Bul.tekh.-ekon.
inform.Gos.nauch.-issl.inst.nauch.i tekhn.inform. 16 no.8:
55-56 '63.

The TPP-6 peat-pressing machine. 56-57

(MIRA 16:10)

POLUNIN, N.I.

New transportation system for fertilizers. Biul.tekh.-ekon.inform.
Gos.nauch.-issl.inst.nauch.i tekhn.inform 17 no.11:71-72 N '64.
(MIRA 18:3)

POLUNIN, N.I.

The RTU-4 spreader. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.
nauch. i tekhn.inform. 16 no.10:79-80 '63. (MIRA 16:11)

POLUNIN, N. I.

The AAP-0,5 "Mikron" aerosol sprayer. Biul.tekh.-ekon.inform.Gos.
nauch.-issl.inst.nauch. i tekhn. inform. no.10:63-64 '62.
(MIRA 15:10)

(Spraying and dusting equipment)

POLUNIN, N.I.

The ZP-10 seed dressing machine. Biol.tekh.-ekon.inform.Gos.-
nauch.-issl.inst.nauch.i tekhn.inform. 16 no.7:54-55 '63.

(MIRA 16:8)

(Seeds—Cleaning)

POLUNIN, N.I.

APR "TEMP" unit for preparing spraying liquids. Bul.tekh.-
ekon.inform.Gos.nauch.-issl.inst.nauch.1 tekhn.inform. no.2:71-72
'63. (MIRA 16:2)

(Spraying and dusting)

POLUNIN, N.I.

The SHN-1 tree-planting machine. Biul.tekh.-ekon.inform.Gos.nauch.-
issl.inst.nauch.i tekhn.inform. no.1:49-50 '63. (MIRA 16:2)
(Tree planting—Equipment and supplies)

POLUNIN, N.I.

The UVP-150 multiple-purpose vibratory loader. *Biul.tekh.-ekon.*
inform.Gos.nauch.-issl.inst.nauch.i tekhn.inform. no.1:69-70 '63.
(Agricultural machinery) (MIRA 1642)

POLUNIN, N.I.

VN-4 water-jet unit. Biul.tekh.-ekon.inform.Gos.nauch.-issl.
inst.nauch.i tekh.inform. no.2:70-71 '63. (MIRA 16:2)
(Jet pumps)

POLUNIN, N. I.

The ATT-2 fertilizer spreader. Biul. tekhn.-ekon. inform. Gos.
nauch.-issl. inst. nauch. i tekhn. inform. no. 12:55-56 '62.
(MIRA 16:1)

(Fertilizer spreaders)

POLUNIN, N.I.

Transportation of harvest products. Biul.tekh.-ekon.inform.
Gos.nauch.-issl.inst.nauch.i tekh.inform. no.8:39-41 Ag '65.
(MIRA 18:12)

POLUNIN, Nikolay Ivanovich

ESP
.R92815

Organizatsiya Raboty Avtotransporta Po Chasovomu Grifiku (Organized
Operation of the Automobile Transportation According to Hourly Charts)
Moskva, Avtotransindat, 1955.
42 p. illus., Diagra., Graphs, Tables (Opyt Novatorov Avtotransporta)

POLUNIN, N. | ,

Economic efficiency of centralizing automotive transport in state
farms. Avt. transp. 34 no.7:6-7 J1 '56. (MLRA 9:10)

(Transportation, Automotive)

POLUNIN, N.I., inzhener.

Read maintenance experience in Altai Territory. Avt.der.18 no.6:6-7
(MLRA 9:2)

0 '55.

(Altai Territerity--Roads--Maintenance and repair)

POLUNIN, Nikolay Ivanovich; IVANOV, I.I., redaktor; MAL'KOVA, N.V.,
tekhnicheskii redaktor

[Work organization of automobile transportation on an hourly basis]
Organizatsiia raboty avtotransporta po chastovomu grafiku. Moskva,
Nauchno-tekhn. izd-vo avtotransp. lit-ry, 1955. 42 p. (MIRA 9:10)
(Transportation, Automotive)

AFONSKIY, S.I., prof., red.; FROMLEY, N.V., kand. biol. nauk;
POLUNIN, P.M., kand. biol. nauk, red.; ROGOZHNIK, A.G.,
~~red.~~

[Biocomplexes and their importance] Biokompleksy i ikh
znachenie. Moskva, Kolos, 1965. 187 p. (MIRA 18:9)

1. Simpozium na temu "Biokompleksy i ikh znachenie."
Moscow, 1962.

SEMENOV, Yefim Semenovich; POLUNIN, V., red.; KUZNETSOVA, A., tekhn. red.

[Volunteer design office] Obshchestvennoe konstruktorskoe biuro.
Moskva, Mosk. rabochii, 1961. 52 p. (MIRA 14:7)
(Moscow—Rubber industry)

SOLOV'YEV, Mikhail Fedorovich; POLUNIN, V., red.; PAVLOVA, S., tekhn.red.

[They bring happiness to people] Oni prinosiat ljudiam radost'.
Moskva, Mosk.rabochii, 1960. 27 p. (MIRA 14:1)
(Moscow--Clothing industry) (Socialist competition)

POIUNIN, V.I., inzh.

Using trenching machinery for the construction of a drainage
system in winter. Stroil. i dor. mash. 10 no.3:9-10 Mr '65.
(MIRA 18:5)

KADULIN, Valentin Gennadiyevich; POLUNIN, Vladimir Sergeyevich; GUROV, S.,
red.; KUZNETSOVA, A., tekhn. red.

[Caramel production line] Karamel'nyi potok. Moskva, Mosk. rabo-
chii, 1961. 45 p. (MIRA 14:11)
(Caramel)

POLUNIN, Ya.Ya., kand. sel'skokhoz. nauk

VIR 344-4, a new pea variety produced by the All-Union Institute of Plant Culture. Agrobiologiya no.1:82-85 Ja-P '65. (MIRA 18:4)

1. Moskovskoye otdeleniye Vsesoyuznogo instituta rasteniyevodstva.

POLUNIN, Ya.Ya., kand.sel'skokhozyaystvennykh nauk

Heterosis (Increased vigor) in the progeny of grafted plants.
Agrobiologiya no.4:530-538 J1-Ag '60. (MIRA 13:8)

1. Moskovskoye otdeleniye Vsesoyuznogo instituta rasteniyevodstva.
(Heterosis) (Grafting)

Country : USSR
Category : Cultivated Plants. Potatoes. Vegetables. Melons. M
Abstr : Agrobiol., No 6, 1959, No 24912
Author : Polunin, Ya. Ya.
Inst : Moscow Fruit and Berry Station.
Title : Vegetative Hybrid of the Pea, Uroshay 51.
Orig Pub : Agrobiologiya, 1957, No. 3, 99-104

Abstract : A description of: the history of obtaining the pea variety Uroshay 51 at the Moscow Fruit and Berry Station, the method of grafting the variety Cerebral Stem on the variety Lord Roberts, phenological observations on the first and second seed generations, and data on preliminary grade-testing in the third seed generation and grade-testing according to the method of state grade-testing in the fourth seed generation. -- Ye. N. Volotov

Card : 1/1

POLUNIN, Ya. Ya.

"Intra-Species Cross-Breeding as a Method for Seed
Culture and Selection of Peas Intended for Canning",
Agrobiol., No. 1949. (Moscow Experimental Selection
Station, Min. Food Ind.,) -cl949-.

POLUNIN, Ye.

Steam generator operating on casinghead gas. Neftianik 7 no.4:21
Ap '62. (MIRA 15:11)

1. Starshiy inzh. Voyvozhskogo neftepromyslovogo upravleniya.
(Komi A.S.S.R.—Boilers)

POLUNIN, Ye.Ye.

Thermal-acid hydraulic fracturing without hoisting tubing, pump,
and rod. Nefteprom. delo no.8:11-12 '63. (MIRA 17:4)

1. Voyvozhskoye neftepromyslovoye upravleniye.

POLUNIN, Ye.Ye.

Thermal-acid hydraulic fracturing without hoisting tubing, pump,
and rod. Nefteprom. delo no.8:11-12 '63. (MIRA 17:4)

1. Voyvozhskoye neftepromyslovoye upravleniye.

POLUNIN, Ye.Ye.

Increasing the efficiency of thermochemical treatment. Neftprom. delo no.4:15-17 '63. (MIRA 17:8)

1. Voyvozhskoye neftepromyslovoye upravleniye.

POLUNIN, Ye. Ye.

SCV/92-58-12-7/24

14(5)

AUTHORS: Gane, B.R., Chief Engineer, and Polunin, Ye. Ye., Senior Engineer

TITLE: Effort to Control Paraffin Accumulation Is an Effort to Increase Oilwell Output (Bor'ba s otlozheniyami paraffina -- bor'ba za proizvoditel'nost' skvazhin)

PERIODICAL: Neftyanik, 1958, Nr 12, pp 10-11 (USSR)

ABSTRACT: Petroleum recovered in the Vayvach oilfields of the Ukhta combine contains a considerable amount of paraffin which makes the exploitation of free flow wells and pumped wells very complicated. The accumulation of paraffin lowers the oilwell output and reduces the throughput of petroleum carrying pipelines. Furthermore, it hampers the automation of oilfield operations. While measures taken against paraffin deposition in subterranean pipes can be considered as satisfactory, the prevention and elimination of paraffin accumulation in the oilfield petroleum carrying pipe system are rather inefficient. Methods of deparaffinization are expensive and do not produce satisfactory results. The experience gained in the Ukhta oilfields indicates that after a short period of operation petroleum stream lines become entirely clogged with paraffin. Due to severe climatic conditions prevailing at Ukhta the usual methods of removing paraffin from petroleum stream lines in oilfields could not produce satisfactory results. Ultimately, after numerous tests carried out

Card 1/2

Effort to Control Paraffin (Cont.)

SOV/92-58-12-7/24

during several years, a new efficient method of preventing paraffin accumulation in these lines was found. As an experiment, light weight galvanized pipes, 76 x 1.5 mm in diameter, 8 m long, weighing 16 kg each, were installed in some petroleum carrying lines. The subsequent examination of these pipes revealed that there was no paraffin deposition on the inner surface of pipes, while the steel pipes used for the same purpose became clogged with paraffin after 10-12 days of operation. It is clear therefore that the inner surface of a pipe affects the process of paraffin deposition, which is retarded by the polished surface of a galvanized pipe. Drillers of the Bashkir Republic and the Ufa Scientific Research Institute are also making efforts to reduce the paraffin accumulation in free flow wells by coating the inner surface of pipes with petroleum resistant dye. Experiments carried out in this connection at the Taimaza Oilfields were rather successful. Similar successful experiments were also carried out at the Baku Oilfields by using light pipes made of plastic material. It is also necessary to note that coating pressure tubes and seamless steel pipes with a zinc layer substantially reduces the corrosion of steel. This fact is of considerable importance when oil reservoir rocks are flooded, and when oil or gas wells are drilled in formations containing much water with hydrogen sulfide.

ASSOCIATION: Vovvozhskeye PTO (The VovVosh Petroleum Production Administration)

Card 2/2

GENE, B.R.; POLUNIN, Ye.Ye.

Combating the deposition of paraffin means increasing the productivity of wells. Neftianik 3 no.12:10-11 D '58.

(MIRA 12:2)

1. Glavnyy inzh. Voyvozhskogo neftyanogo upravleniya (for Gene).
2. Starshiy inzh. proizvodstvenno-tekhnicheskogo otdela Voyvozhskogo neftyanogo upravleniya (for Polunin).

(Paraffin)

POLUNIN, Ya. Ya., starshiy inzh.

Dewaxing petroleum pipelines. Neftianik 7 no.3:16 Mr '62.
(MIRA 15:5)

1. Voyvozhskoye neftepromyslvoye upravleniye.
(Petroleum pipelines) (Paraffin wax)

14(5)

SOV/92-59-3-6/44

AUTHOR: Polunin, Ye. Ye., Senior Engineer

TITLE: Automatic Electrical Heating of Wellheads of Input Wells (Avtomaticheskij elektrobogrev ust'ya magnetatel'nykh skvazhin)

PERIODICAL: Neftyanik, 1959, Nr 3, pp 8-10 (USSR)

ABSTRACT: In order to perform oil reservoir contour flooding at the Ukhta oilfields in the winter, it is necessary to pre-heat the wellhead equipment of input wells. The installation of the necessary gas heaters, and the building of shelters and other facilities is, under conditions prevailing at Ukhta, costly, and makes the flooding operation an extremely complicated matter. Therefore, Ye. O. Lapelis, foreman-electrician of the electrical department of the Voyvzhskoye Petroleum Production Administration, solved the problem by developing and applying an automatic electric heater designed to heat the wellhead equipment of an input well. His invention made the erection of special installations unnecessary. It

Card 1/3

Automatic Electrical Heating (Cont.) SOV/92-59-3-6/44

facilitated the job of operators and oil well maintenance crews, and lowered the cost of flooding. The electric heater, manometer and other equipment, necessary to heat wellheads were constructed at the oilfield workshop. The wellhead heater shown in Fig. 1 is a two-phase electric heater, the system and its functioning are described by the author in detail. In addition, Fig 2 shows how this heater is installed at the wellhead of an input well. The heater in question functions when the flooding of oil reservoir rocks is suspended. First tests with this heater were conducted at the Troitsko-Pecherskiy oilfield exploited by the Voyvotzhskoye Petroleum Production Administration. When the injection of water is suspended and the pressure at the wellhead has gradually declined from 80-85 atm. to 40 atm., the contact of the electric heater turns on automatically, the heater starts to operate, and, as a result, the temperature of the wellhead equipment is raised to 35°-40° in 12-15 minutes. When flooding is resumed, and the pressure has been increased, the contact of the heater turns automatically shuts off. The diagram of Fig. 3 shows the heater system and its various parts, the designation of which is described.

Card 2/3

Automatic Electrical Heating (Cont.)

SOV/92-59-3-6/44

Numerous tests made with this electric heater in 1958 proved that it works satisfactorily. It is presently being introduced in oilfields of the Voyvzhskoye Administration to be used on an industrial scale. There are 3 figures,

ASSOCIATION: PTO Voyvzhskogo NPU (The Production and Technical Department of the Voyvzhskoye Petroleum Production Administration)

Card 3/3

AUTHOR: Polunin, Ye.Ye., Senior Engineer

SOV/92-58-7-10/37

TITLE: Gas Production at Depleted Productive Formations (Dobysha gasa na istoshchennykh mestorozhdeniyakh)

PERIODICAL: Neftyanik, 1958, ³Nr 7, pp 10-12 (USSR)

ABSTRACT: The author states that large gas and gas-petroleum bearing reservoirs are located at the Pechora river in the Komi ASSR. They have been worked for a considerable period of time, and due to water migration in formations the gas wells have become overflooded with water and petroleum in many cases. The presence of emulsion and bottom waters creates serious difficulties in the exploitation of gas wells and often interrupts the free flow of gas. That is why the exclusion of waters in depleted gas bearing formations is a serious problem which has puzzled oilfield workers of the Vayvozh Administration. To find the most advantageous method of limiting gas losses, the Vayvozh administration made an effort to adequately equip gas wells with deep pumping units. As an example the author describes the efforts made to remove

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Gas Production at Depleted Productive Formations

SOV/92-58-7-10/37

the liquid accumulated at the bottom of the overflowed and depleted gas well No. 32 by means of deep pumping. After a number of unsuccessful attempts, a mobile deep pumping unit, shown in Fig. 1 with its auxiliary equipment, was installed at the above-mentioned well. In view of the fact that there was no electric power, the pumper was driven by the AT-7 pneumatic unit operating under a gas pressure of 3.5 - 4 atm. A metal tank mounted on a sled served as petroleum collector. From the latter petroleum was periodically taken away and brought to the petroleum gathering centers of the oilfield. Certain assemblies at the wellhead were modified, and the standard packer was replaced by the packer shown in Fig. 2. This experiment with a deep pumping unit, used in a depleted gas bearing formation for removing the liquid from the gas-well bottom, proved to be entirely successful, and the advantage of the new method over the old methods of removing the liquid from a gas well became evident. The new method makes it possible to eliminate gas losses, to put overflowed gas wells in production again, to cut losses of concomitant petroleum during flushing operations, and to reduce the number of overhauling operations, which are now carried out once a year.

Card 2/3

Gas Production at Depleted Productive Formations

SOV/92-58-7-10/37

As a result, the new method of extracting liquid from the gas bore-hole bottom is now widely used in all gas and gas-petroleum bearing formations at U.K.A.S.
There are 2 figures.

ASSOCIATION: PTO NPU Vcyvozhneft' (Production and Technical Section of the Vcyvozhneft' Petroleum Production Administration)

1. Natural gas---Production
2. Wells---Performance
3. Industrial equipment---Performance
4. Hydrology

Card 3/3

14(5)

SOV/92-59-2-7/40

AUTHOR: Polunin, Ye.Ye., Senior Engineer

TITLE: Use of Plunger With a Reverse Valve in the Thermochemical Treatment of Wells (Porshnevaniye s obratnym klapanom pri termokhimicheskikh skvazhin)

PERIODICAL: Neftyanik, 1959, Nr 2, pp 9-11 (USSR)

ABSTRACT: Petroleum recovered at Ukhta is heavy and contains a considerable amount of paraffin and tar which plug porous formations and hinder petroleum extraction. That is why the thermochemical treatment of wells is used in the Komi ASSR for removing paraffin deposits from the bottom-hole zone. Heat generated by the chemical reaction of magnesium with hydrochloric acid is used for melting paraffin in the bottom-hole zone. The resulting liquid rises through the annular space. Then the well has to be swabbed, and the petroleum product as well as the acid solution have to be removed. This is done by flushing the well with crude oil or by bailing. The operation is intricate and takes much time. To facilitate it master-driller I.N. Kushnarenko, maintenance expert I.A. Ivanyuta, and secondary recovery specialist V.N. Sharov made a proposal to remove the liquid from the well with a plunger equipped with a reverse

Card 1/2

Use of Plunger With (Cont.)

SOV/92-59-2-7/40

valve, the design of which is shown in Fig. 1 and Fig. 2. The operation is carried out without lifting pump tubing. The assembled reverse valve is lowered into the well by means of a 2 1/2" tube, and is installed 5-10 m. below the melted paraffin level. As a result, the valve housing (Fig. 2) always remains under pressure. The author explains how the device under discussion works by moving the plunger up and down. The removal of hydrochloric acid and melted paraffin is continued until the pure oil starts flowing. Then, pressure pump tubes with the reverse valve and suction valve are lifted to the surface and a deep well pump is lowered. This method of removing the products of the thermochemical reaction and the melted paraffin proved to be very useful. The Voyvosh Administration introduced it in oilfields exploited under their control. The method can be recommended for application in other regions of the Soviet Union. There are 2 figures.

ASSOCIATION: Pto Voyvozhskego neftyanogo promysla (The Production and Technical Department of the Voyvosh Oilfield)

Card 2/2